

# Work Order ID 51018

July 30, 2009 8:29:16 AM

Page 1

Item ID: D205-564-011

Accept

Revision ID: J

Item Name: Bearpaw

Setup Start

Stop

Start Date: 7/21/09 Start Qty: 5.00

Required Date: 7/21/09 Req'd Qty: 5.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: *BS*

Date: *31-07-09* Tooling:

Date:

Run Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2521

Rev J

10

100

0.00



DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy Blue file and type labels per PPP D205-564-011 CHG008

*CL 09/08/17*  
*BG 09/08/27*

*S 09/08/26*

120

0.00



Waterjet

FLOW CNC Waterjet

FLOW WATER JET

Memo

Cut Blank as per D2521 blank file

*B 9-8-12*

*10*

130

0.00



HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

(2) Bearpaws Make (1) kit  
1-Inspect material for defects or damage prior to machining  
2-Machine as per Folio and Dwg D2521 Identify as D2521  
3-Deburr

*10*

*N.A 09/08/15*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 51018

July 30, 2009 8:29:16 AM



Page 3

Item ID: D205-564-011

Accept



Setup Start



Revision ID: J

Stop



Item Name: Bearpaw

Start Date: 7/21/09 Start Qty: 5.00



Cust Item ID:

Required Date: 7/21/09 Req'd Qty: 5.00



Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start



QC: Date: SPC (Y/N): Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

160



QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

Memo

0.00

27 8/2/08/26

sets  
TS

f

170



Packaging

Packaging

Identify as per dwg & Stock Location: C

0.00

Memo

0.00

9/8/26 (5)

180



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

09/08/27

09-5-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July 30, 2009 8:29:15 AM

Page 1/6

Work Order ID: 51018

Parent Item: D205-564-011RevJ

Parent Item Name: Bearpaw


Comments:

Start Date: 7/21/09

Required Date: 7/21/09

Start Qty: 5.00

Required Qty: 5.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MUHMWB10 		Purchased	No			120	sf	442.1100	42.1053			
UHMW 1" Black												

## Warehouse Location

### Location

Main Warehouse

MAT

320

110186

320

Main Warehouse

ST

122.11

108762

18

109186

5

110520

8

110721

25

111354

66.11

112186

151

f

360.9700

18.5000

D2182BRevC



Rubber Cushion

Manufactured

No

## Warehouse Location

### Location

Main Warehouse

ST

360.97

28042

7.33

30872

8.33

45405

345.31

112186

B 9-8-0

45405

9/8/18

34

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

July 30, 2009 8:29:15 AM

Work Order ID: 51018

Parent Item: D205-564-011RevJ

Parent Item Name: Bearpaw

Comments:

Start Date: 7/21/09

Required Date: 7/21/09

Start Qty: 5.00

Required Qty: 5.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2274RevF	720	Manufactured	No			151	Each	672.0000	100.0000			



Radius Block

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

672

22494

0

23174

0

36624

17

38173

6

42099

34

43838

62

47796

383

50227

170

09x 47796 MD 09/08/17  
1 x 50227 MD 09/08/17

D2529RevE 420

Manufactured No

151

Each

441.0000

100.0000



Washer

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

441

45388

441

B51406 (62)  
9/8/20 SP  
94 x 45388 MD 09/08/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July 30, 2009 8:29:15 AM

Work Order ID: 51018

Parent Item: D205-564-011RevJ

Parent Item Name: Bearpaw

Comments:

Start Date: 7/21/09

Required Date: 7/21/09

Start Qty: 5.00

Required Qty: 5.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2947RevA1

XB

Manufactured

No

151

Each

168.0000

40.0000



Clamp

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

168

44049

68

46847

100

151

Each

27.0000

20.0000

D3544-041RevA

XY

Manufactured

No



Clamp

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

27

46651

27

40x 44049 MD 09/08/17

20x 46651 MD 09/08/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries

# Picklist Print

July 30, 2009 8:29:15 AM

Work Order ID: 51018

Parent Item: D205-564-011RevJ

Parent Item Name: Bearpaw


Comments:

Start Date: 7/21/09

Required Date: 7/21/09

Start Qty: 5.00

Required Qty: 5.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN4-13A  Bolt		Purchased	No			151	Each	1,325.000	40.0000			

Warehouse  
Location

Main Warehouse

Loc	Qty
ST	1325
107321	1
107534	5
107959	23
109285	37
110552	66
110865	3
111477	9
111925	181
112314	1000
17406	0

116X 111925 MO 09/08/17  
24X 112314 MO 09/08/17

AN4-15A 420



Bolt

Purchased

No

151

Each

1,060.000 100.0000



Warehouse  
Location

Main Warehouse

Loc	Qty
ST	1060
107737	8
108077	1
108868	7
109148	18
110399	26
111295	1000

100X 111295 MO 09/08/17

July 30, 2009 8:29:15 AM

Shop Packet Print

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July 30, 2009 8:29:15 AM

Work Order ID: 51018

Parent Item: D205-564-011RevJ

Parent Item Name: Bearpaw

Comments:

Start Date: 7/21/09

Required Date: 7/21/09

Start Qty: 5.00

Required Qty: 5.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD416	X20	Purchased	No			151	Each	11,912.00	100.0000			



Washer

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

11912

102929

2

105906

4

107321

23

107939

114

108161

553

108827

31

109249

69

110523

340

111279

776

111916

5000

112314

5000

16941

0

100% 111916 mo 09/08/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

July 30, 2009 8:29:15 AM

Page 6

Work Order ID: 51018

Parent Item: D205-564-011RevJ

Parent Item Name: Bearpaw

Comments:


Start Date: 7/21/09

Required Date: 7/21/09

Start Qty: 5.00

Required Qty: 5.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21042L4		Purchased	No			151	Each	10,282.00	100.0000			

MS21042L4 *x20*  
  
*Nut*

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST	10398	
107499	5	
110507	2232	
111827	6000	
112314	2000	
15924	0	
8182	161	

*100 x 110507 mo 09/08/17*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description: Bearpaw</b>		<b>Part Number:</b>	<b>D2521</b>
<b>Inspection Dwg: D2521</b>		<b>Rev: J</b>	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**
☐ **Prototype**

Inspection Sheet Drawing Dimension			Actual Dimension	Accept	Reject	Method of Inspection	Comments
Dim	Min	Max					
A	0.260	0.266	.260	✓			
B	0.90	0.96	.930	✓			
C	0.27	0.330	.310	✓			
D	0.470	0.530	.500	✓			
E	21.740	21.760	21.750	✓			
F	0.72	0.780	.752	✓			
G	0.35	0.410	.380	✓			
H	11.490	11.570	11.500	✓			
I	3.41	3.47	3.431	✓			
J	11.790	11.810	11.800	✓			
K	9.47	9.53	9.500	✓			
L	7.190	7.210	7.200	✓			
M	6.910	6.970	6.94	✓			
N	44.47	44.530	44.500	✓			
O	6.590	6.650	6.624	✓			
P	0.940	0.980	.961	✓			
Q	18.97	19.03	19.00	✓			
R	0.350	0.410	.380	✓			
S	0.740	0.780	.757	✓			
T	0.240	0.280	.255	✓			
U	0.370	0.410	.380	✓			
V	0.740	0.780	.755	✓			
W	0.740	0.780	.760	✓			

<b>Measured by:</b>	<i>SS</i>
<b>Date:</b>	<i>09/04/13</i>

<b>Audited by:</b>	<i>WZ</i>
<b>Date:</b>	<i>09/08/15</i>

<b>Prototype Approval:</b>	N/A
<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	03.09.22	New Issue P/O D205-564-011 & D430-688-011	KJ/RF	
B	05.06.15	Dimensions and tolerances changed	KJ/RF	
C	06.08.31	Dimensions updated per D2521 Rev. J	KJ/JLM <i>JA</i>	<i>SPD</i>

**DART**

DESIGN

DRAWN BY

**DART AEROSPACE LTD**

HAWKESBURY, ONTARIO, CANADA

CHECKED

APPROVED

DRAWING NO.

REV. J

**D2521**

SHEET 2 OF 3

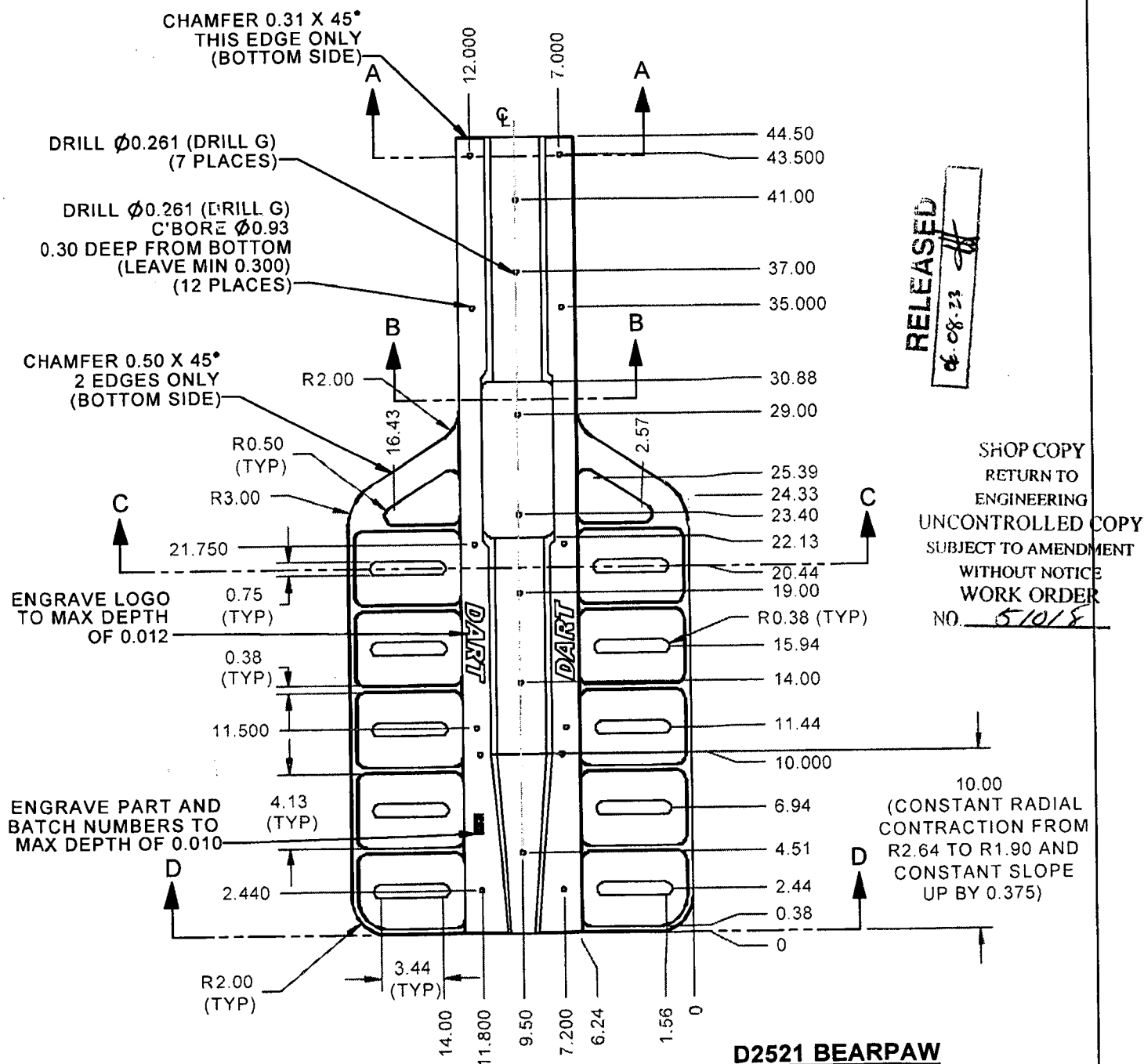
DATE

TITLE

SCALE

**06.07.28****205 BEARPAW**

1:8

**NOTES:**

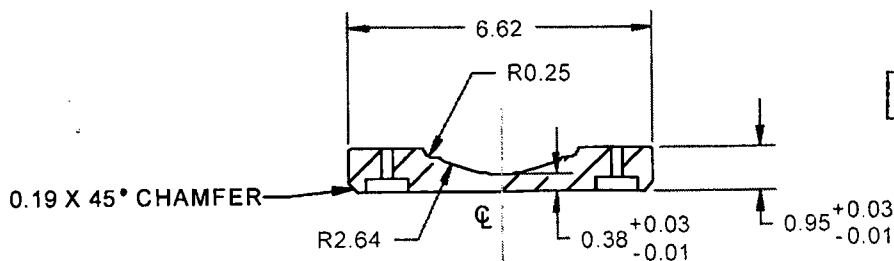
- 1) MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689, 1.000 THICK (MACHINE TO 0.950)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.030
- 6) PART IS SYMMETRIC ABOUT C

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DESIGN	DRAWN BY	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. J
		<b>D2521</b>	SHEET 3 OF 3
DATE	TITLE		SCALE
<b>06.07.28</b>	<b>205 BEARPAW</b>		<b>1:4</b>

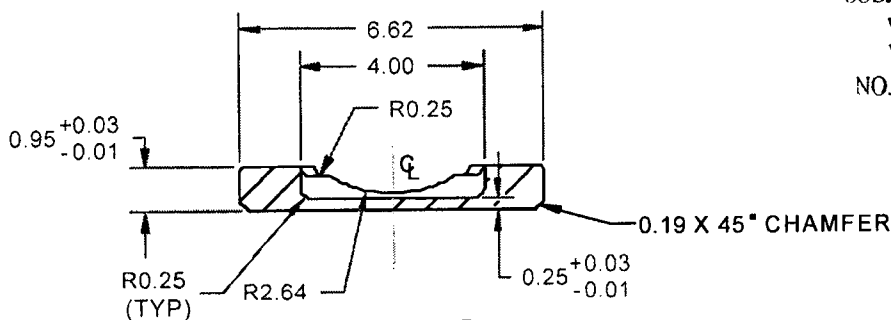


**SECTION A-A**

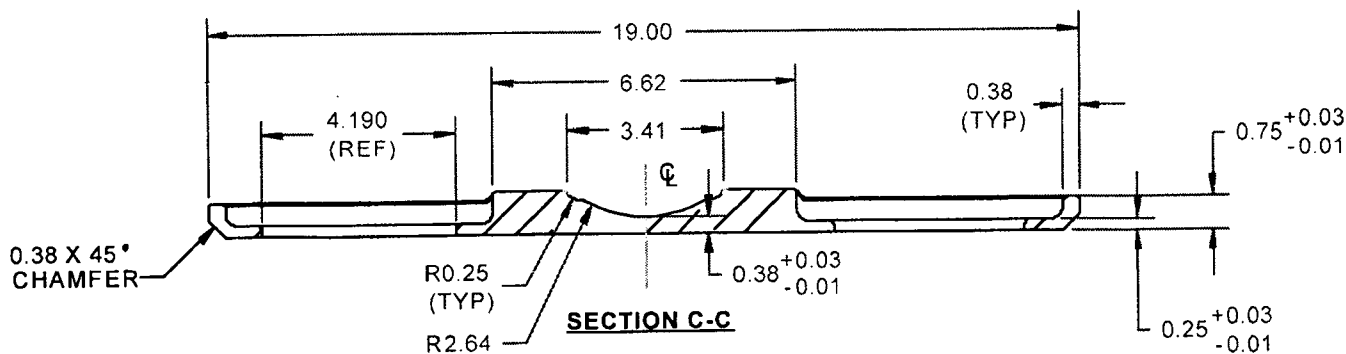
**RELEASED**

06.08.23

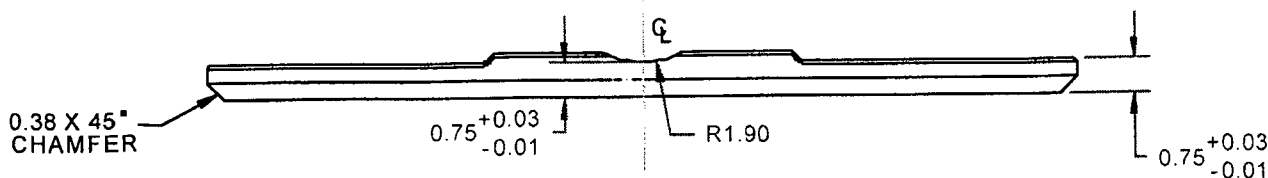
STOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 51018



**SECTION B-B**



**SECTION C-C**



**SECTION D-D**

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## 5.0 PARTS LIST

Qty	Part Number	Description
X	D205-564-011	BEARPAW INSTALLATION
8	D2182B055	RUBBER CUSHION
20	D2274	RADIUS BLOCK
2	D2521	BEARPAW
20	D2529	WASHER
8	D2947	CLAMP
4	D3544-041	CLAMP
8	AN4-13A	BOLT
20	AN4-15A	BOLT
20	AN960JD416	WASHERS
20	MS21042L4	NUT (OR MS21042-4)

Qty	Part Number	Description
X	DSI-9328-011	RUN-ON LANDING WEARPLATE KIT
2	D3511-041	WEARPLATE
16	AN4-17A	BOLT
4	AN4-11A	BOLT
4	AN970-4	WASHER
16	MS21042L4	NUT (OR MS21042-4)

51018